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(54) Title: NITRIC OXIDE-RELEASING POLYMERS

(57) **Abstract:** This invention relates to compositions comprising carbon-based diazeniumdiolates attached to hydrophobic polymers that releases nitric oxide (NO). The carbon-based diazeniumdiolated polymers release NO spontaneously under physiological conditions without subsequent nitrosamine formation. The present invention also relates to methods of preparing the carbon-based diazeniumdiolated polymers, compositions comprising such polymers, methods of using such compositions, and devices employing such polymer compositions.